



TP-6233A

PHILCO RADIO-PHONOGRAPH MODEL 49-1611



Famous for Quality the World Over

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INSTRUCTIONS

for

PHILCO RADIO-PHONOGRAPH

MODEL 49-1611

This new Philco radio-phonograph combination embodies the latest and finest developments in the art of radio and phonograph sound reproduction.

The radio is a sensitive superheterodyne employing seven tubes and two selenium rectifiers, and covering the standard-broadcast (AM) band from 540 to 1600 kilocycles (kc.) and the full frequency-modulation (FM) band from 88.0 to 108.0 megacycles (mc.). Other features included are: the Philco Balanced FM Detector System, the noise-reducing Philco converter, continuously variable tone control and bass compensation, a beam-power-pentode audio system, Philco Loktal tubes, and automatic volume control (AVC), to keep the volume level uniform and free from fading on all programs. A highly efficient AM aerial system, built right into the cabinet, and a line-cord FM aerial are provided to give excellent reception in most locations. Provision is also made for the use of an outdoor FM dipole aerial where reception conditions are unusual.

The phonograph incorporates the new Philco Two-Speed Automatic Record Changer, with Self-Adjusting Spindle and double tone arm. One tone arm employs the Philco Super-Silent Reproducer for playing standard records. This reproducer, having low tracking pressure, greatly reduces surface hiss and needle noise, and gives superb low and high-tone response. A needle guard prevents injury to records. Twelve 10-inch or ten 12-inch standard records can be played automatically. Standard records can also be played manually. The second tone arm employs the revolutionary Philco Balanced-Fidelity Reproducer for playing the new Columbia Long-Playing Records manually, at a turntable speed of $33\frac{1}{3}$ r.p.m. This reproducer, a Philco development, achieves true "concert-hall" balance between high and low tones, and gives amazing tonal fidelity. Only $\frac{1}{5}$ -ounce pressure is applied to the record by the reproducer, assuring extremely long record life and low surface hiss and needle noise. The record-changer spindle automatically adjusts itself to provide FULL clearance for easy unloading of records without removal of the spindle.

A new-design, 10-inch, permanent-magnet speaker, included in the instrument, gives high power output, with clear, rich, rounded tones on both radio and phonograph.

This radio-phonograph is designed to operate from a power source of *115 volts, alternating current (a.c.), 60 cycles.*

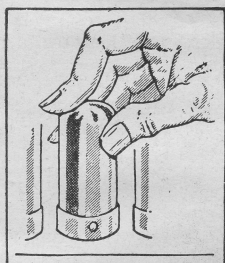
LONG PLAYING RECORDS

Only Columbia Long Playing Microgroove Records should be played through the Philco Balanced Fidelity Reproducer of the phonograph. These records, through a revolutionary "microgroove" process, have been developed especially to play up to 45 minutes of music from both sides of a single 12-inch record, and up to 27 minutes from both sides of a single 10-inch record, at a turntable speed of 33-1/3 r.p.m.

The "microgroove" process permits the recording of a full, standard, six-record album on just one disc. A full-length symphony or concerto, all the songs from a Broadway hit, or a complete program of dances, dinner music, or folk songs is at your disposal on one disc.

This revolutionary new record is made of non-breakable vinylite. Its smooth, quiet surface makes possible freedom from surface noise and record scratch. The new vinylite record used in this system preserves the fidelity of the original performance with recording-studio realism. The realistic shading and overtones in the master recording are retained in this new Long Playing Record. Columbia has issued a full release of classical and popular Long Playing Records for your enjoyment.

INSTALLATION

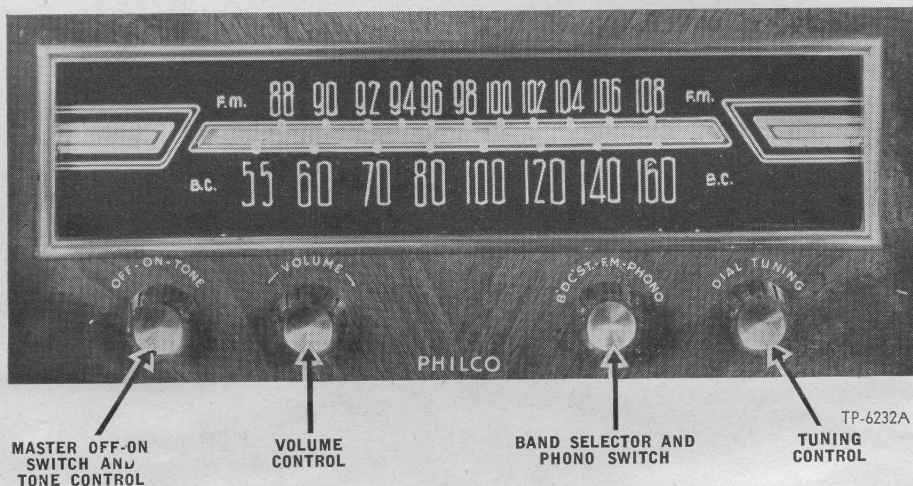


AFTER UNPACKING the radio-phonograph, remove all packing material, cardboard, etc. from the chassis and cabinet. Follow carefully any supplementary instruction which may be printed on the tags. Make sure that all tubes are pushed down firmly in the correct sockets, as shown on the tube labeled attached to the cabinet.

A BUILT-IN LOOP AERIAL is provided for standard-broadcast reception. A line-cord aerial, consisting of a wire connected between the aerial socket and a clip on the power cord, is provided for frequency-modulation reception. The arrangement of the line-cord aerial connections should not be disturbed. In locations where improved AM and FM reception is required, the use of the Philco Dipole Outdoor Aerial, Part No. 45-1462, together with the Philco Aerial Coupler, Part No. 45-1598, is recommended. If the aerial is to be used on the FM range only, the aerial coupler is not required. In certain locations the Philco Aerial Mast Kit, Part No. 45-1465, and the Philco Reflector Kit, Part No. 45-1464, may also be used to provide the very best installation. If an outdoor aerial is to be used for FM reception only, the aerial coupler is not required. Consult your Philco dealer or serviceman for the correct installation in your particular location. If an external aerial is not used, place the radio-phonograph in a location which is clear of large metal objects. If it is placed too near such objects, radio reception may be weakened.

CONNECT THE POWER-CORD PLUG to an outlet of the correct voltage and frequency, as indicated above. If there is any doubt as to the voltage and frequency in your locality, consult the local power company.

RADIO OPERATION



MASTER OFF-ON SWITCH AND TONE CONTROL

This control turns the radio on and off; it also makes power available to the phonograph when the band selector-phonograph switch is turned to PHONO. Further turning provides a range of tones, in both radio and phonograph operation, from treble to bass. Turn the knob clockwise until a click is heard and the tuning scale is illuminated, and allow a short time for the tubes to heat. In this position the treble (high) tones are emphasized. When turned to the middle of its range, both the treble and bass (low) tones are emphasized. When turned fully clockwise, the bass tones are emphasized. The treble position is generally recommended for voice, and for music when high-note emphasis is desired; the middle position provides a balance between high and low notes; the bass position adds mellowness to some types of musical programs and tends to reduce static.

BAND SELECTOR-PHONO SWITCH

This three-position control selects either standard-broadcast reception, frequency-modulation reception, or phonograph operation. Turn the control for the type of operation desired.

VOLUME CONTROL

This control increases or decreases the volume of either the radio or phonograph, clockwise rotation increasing the volume. Turn the knob to a point about halfway through its range.

TUNING CONTROL

This control selects the various stations within the standard-broadcast and frequency-modulation tuning ranges.

A. Standard-Broadcast Tuning

With the band selector-phonograph switch properly set, select the desired station by rotating the tuning-control knob. Reduce the volume by turning the volume-control knob counterclockwise until the station can just be heard, and readjust the tuning control carefully. After the exact setting of the tuning control has been made, adjust the volume to the desired level with the volume control. *Do not control*

the volume of the radio by changing the setting of the tuning control.

B. Frequency-Modulation Tuning

With the volume-control knob turned about halfway through its range, and the band selector-phonograph switch properly set, select the desired station by rotating the tuning-control knob. Reduce the volume until the station can just be heard, then readjust the tuning control carefully until background noise is reduced to a minimum and the best tone quality is obtained. After the exact setting of the tuning control has been made, readjust the volume control for the desired volume.

Because of the high frequencies used in the transmission of frequency-modulation programs, the distance covered by the transmitter is considerably less than that by a standard-broadcast transmitter. Factors such as the shielding effect of mountains, buildings, etc. greatly limit the distance for satisfactory reception. The use of the Philco Dipole Outdoor Aerial, Part No. 45-1462, will considerably improve the reception of frequency-modulation stations.

DIRECTIONAL AERIAL EFFECT

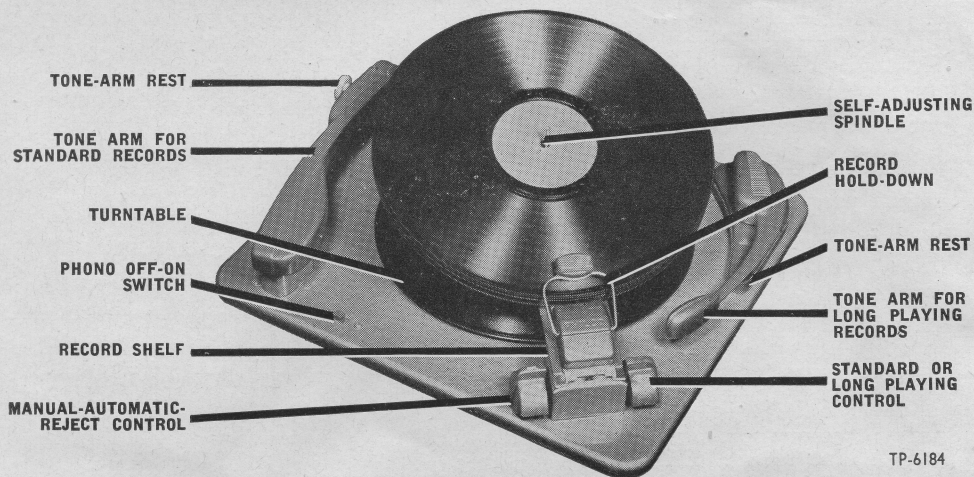
If the radio is operated with the built-in aerial, with no external aerial attached, turning the cabinet so that it faces different directions will cause variations in volume, especially when the radio is tuned to a weak or distant station. This directional effect is a characteristic of all built-in aerials of the "loop" type. In many instances this characteristic can be used to advantage in reducing noise or station interference. For the best reception, place the cabinet in a position which reduces the volume of the interference and increases the volume of the desired station; the best position for the cabinet may vary for different stations.

IMPORTANT

When tuning a radio with the volume control turned too high, it is difficult to locate the point where the station is exactly tuned in. If the station is not tuned in properly, one or more of the following conditions may be noticed:

1. Distortion (poor tone quality).
2. Interference from other stations operating in an adjacent channel.
3. An increase in noise (static), either from atmospheric conditions or from some local electrical device.

PHONOGRAPH OPERATION



TP-6184

In addition to the master off-on switch and tone control, the volume control, and the band selector-phonograph switch, which are described under "RADIO OPERATION," the following controls, located on the changer, are also used in the operation of the phonograph.

PHONO OFF-ON SWITCH

This switch is used to furnish power to the phonograph mechanism. In the left-hand position the power is disconnected; in the right-hand position the power is applied.

MANUAL-AUTOMATIC-REJECT CONTROL

With this control set to the MAN (manual) position (toward the front), records must be played manually. With the control set to the AUT (automatic) position (middle), the automatic-changer mechanism is operative. When the control is pushed to the REJ (reject) position (toward the back) and released, the automatic change cycle of the phonograph is started, or an unwanted record is rejected. Note: For either automatic or manual operation of the phonograph, the master off-on switch and tone control must be in the ON position, the band selector-phonograph switch must be set to PHONO, and the phono off-on switch must be set to the right.

STANDARD OR LONG-PLAYING CONTROL

With this control set to the STD (standard) position (toward the front), the phonograph speed is correctly set for playing the regular standard records. When this control is set to LONG (long playing) position (toward the rear), the phonograph speed is correctly set for playing the new Long Playing Records.

STANDARD-RECORD OPERATION

AUTOMATIC OPERATING PROCEDURE

1. Turn the master off-on switch and tone control clockwise until a click is heard and the tuning scale is illuminated; set the band selector-phonograph switch to PHONO. Set the standard or long playing control to STD.

2. Turn the record shelf for the particular size of records to be played. The number turned toward the turntable indicates the record size, either 10 inches or 12 inches.

3. Swing the record hold-down to its position away from the turntable. Note: The two tone arms should be placed in position on their tone-arm rests. If the standard tone arm is raised or stopped during its change cycle, set the phono off-on switch to the right-hand position and allow the changer to complete its cycle before placing the standard tone arm on its rest. If the turntable does not start, swing the long playing tone arm to the right as far as it will go to reset the automatic shut-off.

4. Carefully place not more than twelve standard 10-inch or ten 12-inch records on the Self-Adjusting Spindle.

5. Swing the record hold-down into position on the top record, and set the phono off-on switch to the right-hand position.

6. Push the manual-automatic-reject control to the REJ position and release. The cycle of operation will start, and the record will be automatically placed on the turntable.

7. Adjust the volume control for the desired volume and the tone control for the desired tone quality.

8. To reject a record at any time during the playing of the record, push the manual-automatic-reject control to the REJ position and release.

9. WHEN IT IS DESIRED TO STOP THE CHANGER, SET THE PHONO OFF-ON SWITCH TO THE LEFT-HAND POSITION AND CAREFULLY LIFT THE TONE ARM TO ITS REST.

10. Turn the master off-on switch and tone control fully counter-clockwise.

11. In order to avoid warpage of records, remove them from the record shelf when the phonograph is not in use. Records on the turntable may be left indefinitely without damage, or may be removed by simply raising them up over the end of the Self-Adjusting Spindle.

MANUAL OPERATING PROCEDURE

1. Turn the master off-on switch and tone control clockwise until a click is heard and the tuning scale is illuminated; set the band selector-phonograph switch to PHONO. Set the standard or long playing control to STD.

2. Set the manual-automatic-reject control to the MAN position (toward the front).

3. Turn the record shelf to the 12-inch position, and swing the record hold-down to its position away from the turntable.

4. Carefully place a record over the Self-Adjusting Spindle and onto the turntable.

5. Set the phono off-on switch to the right-hand position.

6. Lift the tone arm for standard records (left-hand side) from the tone-arm rest by pushing it outward and upward; carefully place the tone arm onto the record so that the needle rests in the starting groove. Adjust the volume control for the desired volume, and the tone control for the desired tone quality.

7. After the record has been played, carefully lift the tone arm to its position on the tone-arm rest.

8. To remove the record, simply lift it up over the Self-Adjusting Spindle.

9. IF NO OTHER RECORDS ARE TO BE PLAYED, SET THE PHONO OFF-ON SWITCH TO THE LEFT-HAND POSITION, AND TURN THE MASTER OFF-ON SWITCH AND TONE CONTROL TO THE "OFF" POSITION.

CAUTIONS

1. The record changer is equipped with safety features so that the tone arm can be moved, or the changer stopped, during the cycle without damage to the tone arm or any adjustments. However, it is good practice to avoid stopping the changer or touching the tone arm during the change cycle.

2. Do not overload the changer. The maximum load is twelve standard 10-inch or ten 12-inch records.

3. Be sure that the tone arms are in position on the tone-arm rests when the radio is moved.

REPLACEMENT OF SUPER-SILENT-REPRODUCER NEEDLE

To replace the precious-metal needle in the tone-arm reproducer for standard records, hold the needle firmly and loosen the round knurled nut on the end of the needle chuck with the fingers or a small pair of pliers. Remove the old needle and insert the new one, an exact duplicate only (Philco Part No. 35-2670), AS FAR INTO THE NEEDLE HOLE AS IT WILL GO. Hold the needle firmly in the proper position and tighten the round knurled nut.

LONG PLAYING RECORD OPERATION

1. Turn the master off-on switch and tone control clockwise until a click is heard and the tuning scale is illuminated; set the band selector-phono switch to PHONO.

2. Remove all standard records which might be on the turntable or record shelf.

3. Set the manual-automatic-reject control to the MAN position (toward the front), and set the standard or long playing control to LONG. Warning: Never push the manual-automatic-reject control to "REJ" while a Long Playing Record is on the turntable. Never allow the standard tone arm to ride on any Long Playing Record.

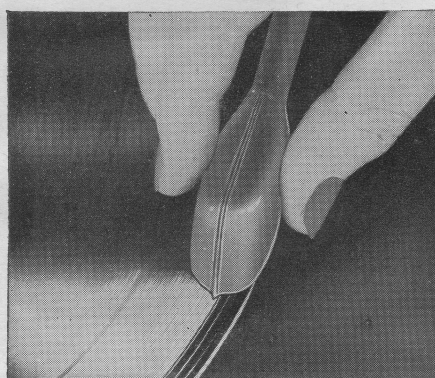
4. Turn the record shelf to the 12-inch position, and swing the record hold-down to its position away from the turntable.

Note: The two tone arms should be placed in position on their tone-arm rests. If the standard tone arm is raised or stopped during its change cycle, set the phono off-on switch to the right-hand position and allow the changer to complete its cycle before placing the standard tone arm on its rest. If the turntable does not start, swing the long playing tone arm to the right as far as it will go to reset the automatic shut-off.

5. Carefully place a Long Playing Record over the Self-Adjusting Spindle and onto the turntable. (Only one Long Playing Record should be on the turntable at a time.)

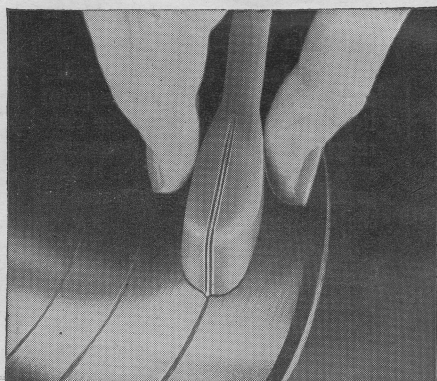
6. Set the phono off-on switch to the right-hand position.

7. Lift the tone arm for Long Playing Records (right-hand side) from the tone-arm rest and move it in toward the record. A guide mark will be found on the end of the Balanced-Fidelity Reproducer for the proper placement of the needle in the first groove of the record. With this guide mark directly over the first groove of the record, as shown in the illustration, set the reproducer gently down on the record. Adjust the volume control for the desired volume.



TP-6163

**Placing Needle in First Groove
of Long-Playing Record**



TP-6164

**Placing Needle in First Groove of
Inner Section of Long-Playing Record**

On many Long Playing Records you will find several selections listed on the label for your convenience in selecting your favorite. These selections are spaced apart on the record. When playing any of the individual selections, align the reproducer guide over the first groove of the desired selection, as shown in the illustration. Then set the reproducer down gently.

8. When the record is finished, the turntable will stop automatically.

9. When removing the tone arm from the record, lift the arm one-half inch above the record, swing it to the right as far as it will go (to reset the automatic shut-off), and place it on the tone-arm rest.

10. To remove the record, simply lift it up over the Self-Adjusting Spindle.

11. IF NO OTHER RECORDS ARE TO BE PLAYED, SET THE PHONO OFF-ON SWITCH TO THE LEFT-HAND POSITION, AND TURN THE MASTER OFF-ON SWITCH AND TONE CONTROL TO THE "OFF" POSITION.

REPLACEMENT OF BALANCED-FIDELITY-REPRODUCER NEEDLE

The needle used in the reproducer of the tone arm for Long Playing Records will give many hours of superb musical reproduction before replacement is required. When replacement is necessary, use *only* the Philco Album-Length Record Player Needle, Part No. 35-2678. *No other needle can be used.* Make the needle replacement in accordance with the following procedure:

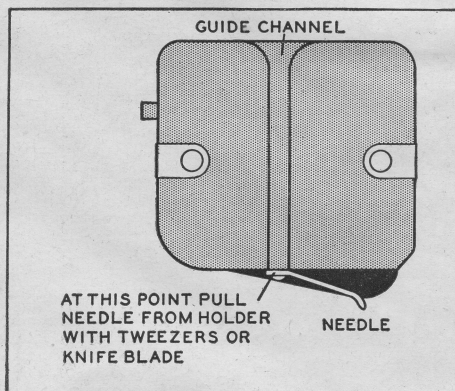
a. Lift the tone arm for Long Playing Records from the tone-arm rest.

b. Remove the reproducer cartridge from the tone-arm head by grasping the reproducer cartridge firmly between the thumb and forefinger and pulling downward gently. As an additional aid in the removal, a fingernail slot is provided in each side of the cartridge.

c. Gently pull the needle from the reproducer cartridge as shown in the illustration.

d. Insert the new needle, making sure that the needle point lies toward the front of the cartridge, between the two protecting ears. Press the heel of the needle gently until it is firmly seated in the needle holder.

e. Replace the reproducer cartridge, with the needle toward the front of the tone arm, by first positioning the slots in the sides of the cartridge to engage the guides in the tone-arm head, and then gently pressing the cartridge up into the head until it is firmly seated in position.



TP-6240

Removing Needle from
Balanced-Fidelity Reproducer Cartridge

CARE OF LONG-PLAYING RECORDS

While your Long Playing Records are made of nonbreakable vinylite, they should be handled with care to maintain the original high quality of sound reproduction which they are designed to give. Always store the records properly, when not in use, in their protective envelopes. Several precautions which should be observed in handling records are as follows:

To prevent warping of the records:

a. Do not allow records to remain on the turntable when the phonograph is not in use.

b. Do not allow direct sunlight or heat from any other source to fall on the records for any length of time.

c. Place records on a flat surface when they are not in their protective envelopes.

To prevent scoring or scratching of the record surface, which will impair the sound reproduction:

a. Do not allow sharp objects to come in contact with the surface of the records.

b. Do not continue to use a worn-out needle.

Handle records by the edge, so that the fingers do not contact the playing surface. Fingerprints cause hard deposits of dust to accumulate on the playing surface, and impair the tone quality. If it is necessary to clean dust from the record surface, use either a camel's-hair brush or a soft cloth.

tone ARMS

The standard and Long Playing Record tone arms on the phonograph are equipped with high-quality reproducers. Each reproducer rests lightly on the record, to provide long record life.

The phonograph is designed to give the best performance with genuine Philco parts. This is important. If other replacement parts are used, the design balance may be badly upset. This is especially true in the replacement of needles and reproducer cartridges.

YOUR GUARANTY FROM PHILCO

Your new Philco is a high quality instrument. It has been built with care and skill and enters your home with a promise of years of pleasure and satisfaction.

To fulfill that promise, first of all, your Philco is guaranteed under the terms of the Standard Warranty below. But beyond this, Philco maintains an extensive factory-trained service organization of its distributors, dealers and servicemen, which is constantly available to you as a Philco owner. It is an added value which comes to you with every Philco product.

In accordance with this policy, it is your Philco dealer's desire and responsibility to render any service required under and during the period of the warranty. After the expiration of the warranty, he will be equally helpful in securing necessary repairs and adjustments for you, either in his own shop at reasonable cost or by referring you to a nearby member of "Philco Service," a world-wide association of appliance servicemen.

PHILCO SERVICE members are thoroughly trained by Philco factory engineers and service technicians. They offer expert, reliable service at standard, reasonable labor charges; they guarantee their work, and they use genuine Philco replacement parts and tubes. Members can be identified by the "Philco Service" emblem.

Thus, the entire engineering and service resources of Philco seek to insure your long-continued satisfaction.



STANDARD WARRANTY

"We warrant each new Philco set to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good any part or parts thereof which shall, within ninety (90) days after delivery of such set to the original retail purchaser, be returned to us through our distributor or dealer with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied, and of all other obligations or liabilities on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of our products.

"This warranty shall not apply to any set which shall have been repaired or altered in any way so as, in our judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident, nor which has had the serial number altered, effaced or removed. Neither shall this warranty apply to any set which has been connected otherwise than in accordance with the instructions furnished by us."

PHILCO CORPORATION

PHILADELPHIA